Neurological Medications.

Neural cells do not touch each other; there are synapses/spaces/clefts between neurons. Communicating between each other by releasing neurotransmitters.

Autonomic Nervous System
- Involuntary control over smooth and cardiac muscle and glands
  - Sympathetic- Fight or flight
  - Parasympathetic- Rest and Digest

Sympathetic Nervous System
- SAME as Adrenergic (synonyms)

Sympathomimetic- mimics the sympathetic nervous system.
Adrenal glands put out epinephrine, norepinephrine, adrenaline.
  Adrenaline raises heart rate, etc..brings back to life.
Anything produced in the adrenal glands are a sympathomimetic.

Sympatholytics- Medicines that CANCEL out the sympathetic nervous system.
  - Lowers blood pressure..
  - Sympathetic blocker is the same thing..
If sympathetic blocker is given to an asthmatic it will constrict their bronchioles even more, and could die..

Types of Adrenergic Receptors

Alpha 1- in the eyes
Beta 2 receptors- in the heart
Beta 1,2,3.

If a patient is given a sympatholytic Alpha 1- it will dilate the eyes, and only will effect the eyes, not heart.

Sympatholytic Alpha 2. will lower heart rate and will not effect eyes.

Need to know table 13.2 page 137

Alpha 1 Adrenergic-
**Beta 2 Adrenergic**- Used to lower blood pressure because they block the effects of norepinephrine.

Adrenergic Blockers/Sympathetic Blockers/Sympatholytics= ALL THE SAME THING
- If I administer an Alpha 1 blocker, the pupils will constrict.

**The nurse is taking care of a patient who is receiving an Alpha 1 blocker, the nurse anticipates what will happen to his heart rate? Nothing. His eyes? Constriction.**

Beta Blockers
- A nurse needs to monitor BP and heart rate if patient is giving a beta blocker.
- If heart rate is 48 stop administering and call doctor.
- Beta blocker decreases heart rate and decreases blood pressure, Regular beta 2 increases heart rate and BP, so blocking beta 2 the heart rate will decrease, in turn, decreasing blood pressure.

Glaucoma is when eye duct is closed, and eye fills up with vitreous fluid, when eyes dilate they block the ducts, so constricted pupils are better.

**TABLE 13.2 READ IT AND KNOW IT**

**Parasympathetic**- Exact opposite as sympathetic nervous system.

**Cholinergic**=Parasympathomemetic

More acetylcholine we give to patient, slower the heart rate..

**Sympathomemetic-adrenergic**

Cholinergic blocking agents (**Anticholinergics**) are opposite of cholinergic agents

*******PAGE 138 Section 13.6!!!!!!!!!!!

Things that make the sympathetic nervous system more- make chart

Some of the effects the nurse would expect from administering anticholinergic

**Atropine given to patient before surgery to decrease salivary secretion..**

**For a patient with Glaucoma, do NOT give a patient atropine, will make eyes full of pressure..**
Epinephrine is only used for an emergency, through IV push.

Dopamine is a sympathomimetic
Dobutrex is a sympathomimetic

The nurse administers propelytolol which one of the following items would proclude the patient from getting this medicine.... Answer: asthma

Cholinergic Meds: (profound weakness) with good effect for patients with alzheimers disease.

Role of nurse
- monitor patients condition
- provide education on drug therapy
- notice adverse effects of drug therapy
- identify possible interactions
- identify contraindications of drug therapy

Assess the patient, all their past history, etc.
- Doctor comes up with medical diagnosis,

Major Types of Anxiety Disorders
- Situational anxiety
- Generalized anxiety disorder
- Panic Disorder
- Phobias
- Social Anxiety
- Obsessive-Compulsive disorder
- Post-Traumatic Stress Disorder

Reticular Activating System- responsible for fear, anxiety, restlessness

Assessment of patient...
- obtain vital signs, medical and drug history
- sleep schedule
Treatment to cope with anxiety, nonpharmacologic
- counseling
- biofeedback techniques
Treating anxiety and insomnia

Anxiolytics- most common are barbituates and benzodiazepines.

CNS depressants- 2 major classes
-barbiturates
-Benzodiazepines

Anti-depressants-
Tricyclix - Antidepressants (TCA)
Selective Seratonin Receptor Inhibitors (SSRI's)
Monoamineoxidase inhibitors (MAOI's)